

# Estimating with Fractions and Mixed Numbers

R 5-3

Estimate  $5\frac{1}{8} \times 23\frac{5}{6}$  using rounding and compatible numbers.

$$5\frac{1}{8} \times 23\frac{5}{6}$$

$$\downarrow \quad \downarrow$$

$$5 \times 24$$

$$\downarrow \quad \downarrow$$

$$4 \times 25 = 100$$

$$5\frac{1}{8} \times 23\frac{5}{6} \approx 100$$

Round each mixed number to the nearest whole number.

$4 \times 25$  is easier to multiply than  $5 \times 24$ .

Estimate  $17\frac{1}{7} \div 3\frac{8}{9}$  using rounding and compatible numbers.

$$17\frac{1}{7} \div 3\frac{8}{9}$$

$$\downarrow \quad \downarrow$$

$$17 \div 4$$

$$\downarrow \quad \downarrow$$

$$16 \div 4 = 4$$

$$17\frac{1}{7} \div 3\frac{8}{9} \approx 4$$

Round each mixed number to the nearest whole number.

Use compatible numbers to divide.

Estimate each product or quotient.

1.  $\frac{6}{7} \times 12$  \_\_\_\_\_

2.  $25 \div 4\frac{2}{3}$  \_\_\_\_\_

3.  $3\frac{8}{9} \times 7\frac{3}{4}$  \_\_\_\_\_

4.  $19\frac{12}{15} \div 5\frac{1}{4}$  \_\_\_\_\_

5.  $2\frac{1}{5} \times 36$  \_\_\_\_\_

6.  $39 \div 7\frac{2}{3}$  \_\_\_\_\_

7.  $12\frac{1}{8} \times 2\frac{9}{10}$  \_\_\_\_\_

8.  $35\frac{4}{5} \div 5\frac{7}{8}$  \_\_\_\_\_

9.  $\frac{15}{16} \times 62$  \_\_\_\_\_

10.  $48\frac{7}{9} \div 9\frac{2}{3}$  \_\_\_\_\_

11. **Writing in Math** Explain how you would estimate  $3\frac{5}{6} \times 29\frac{4}{5}$  using compatible numbers.

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